

until the same intersects the St. Louis River, "thence down said river to and through Lake Superior," etc. The St. Louis River loses its well-defined banks, deep, narrow channel, and obvious current, characteristic of a river, before reaching Lake Superior proper, emptying or merging into Upper St. Louis Bay, which joins with Lower St. Louis Bay and this with Allouez and Superior Bays, all of the same level as Lake Superior and connected with it by a narrow "entry." *Held*, upon historical and other facts and circumstances, that the mouth of the river, as intended by the Wisconsin Enabling Act, is this "entry" or opening and not where the river, in a stricter sense of the term, debouches into Upper St. Louis Bay. P. 279.

At the date of the Wisconsin Enabling Act, Upper and Lower St. Louis Bays, parts of St. Louis River as herein defined, were broad sheets with irregular, indented shores, with no definite, uninterrupted channel extending throughout their entire length, and with no steady current controlling navigation. Such vessels as plied there then and long thereafter, until dredging improvements intervened, moved freely in different directions, and drew less than 8 feet, the depths of the entry from Lake Superior and of the waters of the Lower Bay being too slight for vessels drawing more. The Lower Bay was shallow, with a ruling depth of eight feet, and had no well-defined channel. In the Upper Bay there was a narrow, winding channel near the Minnesota shore with a ruling depth of ten, possibly eight, feet; but a more direct, median course could be and customarily was pursued by vessels for approximately one mile until a deeper channel was encountered, and this was long regarded by officers and representatives of the two States as approximately the boundary. *Held*, that the boundary runs through the middle of the Lower Bay to a deep channel leading into the Upper Bay, to a point, thence westward along the aforesaid more direct median course through waters not less than eight feet deep, approximately one mile to the deep channel to which it leads, and thence, following this, up-stream. P. 280.

In applying the rule of the *Thalweg* (*Arkansas v. Tennessee*, 246 U. S. 158), the deepest water and the principal navigable channel are not necessarily the same. It refers to actual or probable use in the ordinary course; and to adopt in this case a narrow, crooked channel close to shore in preference to a safer and more direct one with sufficient water would defeat its purpose. P. 281.

THE case is stated in the opinion.

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Opinion of the Court.

*Mr. W. D. Bailey* and *Mr. H. B. Fryberger*, with whom *Mr. Clifford L. Hilton*, Attorney General of the State of Minnesota, *Mr. Oscar Mitchell* and *Mr. Louis Hanitch* were on the briefs, for complainant.

*Mr. M. B. Olbrich*, Deputy Attorney General of the State of Wisconsin, with whom *Mr. John J. Blaine*, Attorney General of the State of Wisconsin, was on the brief, for defendant.

MR. JUSTICE McREYNOLDS delivered the opinion of the court.

We are asked to ascertain and establish the boundary line between the parties in Upper and Lower St. Louis Bays. Complainant claims to the middle of each bay—halfway between the shores. The defendant does not seriously question this claim as to the lower bay, but earnestly maintains that in the upper one the line follows a sinuous course near complainant's shore. Since 1893 a deep channel has been dredged through these waters and harbor lines have been established. According to Wisconsin's insistence, its border crosses and recrosses this channel and intersects certain docks extending from the Minnesota shore, leaving portions of them in each State. See *Wisconsin v. Duluth*, 96 U. S. 379; *Norton v. Whiteside*, 239 U. S. 144.

"An Act to enable the People of Wisconsin Territory to form a Constitution and State Government, and for the Admission of such State into the Union," approved August 6, 1846, c. 89, 9 Stat. 56, described the boundary in part as follows: "Thence [with the northwesterly boundary of Michigan] down the main channel of the Montreal River to the middle of Lake Superior; thence [westwardly] through the centre of Lake Superior to the mouth of the St. Louis River; thence up the main channel

of said river to the first rapids in the same, above the Indian village, according to Nicollet's map; thence due south to the main branch of the River St. Croix," etc., etc. With the boundaries described by the Enabling Act, Wisconsin entered the Union May 29, 1848 (c. 50, 9 Stat. 233).

"An Act to authorize the people of the Territory of Minnesota to form a Constitution and State Government, preparatory to their Admission in the Union," approved February 26, 1857, c. 60, 11 Stat. 166, specifies a portion of the boundary thus: "Thence by a due south line to the north line of the State of Iowa; thence east along the northern boundary of said State to the main channel of the Mississippi River; thence up the main channel of said river, and following the boundary line of the State of Wisconsin, until the same intersects the Saint Louis River; *thence down said river to and through Lake Superior, on the boundary line of Wisconsin and Michigan*, until it intersects the dividing line between the United States and the British possessions." With boundaries as therein described, Minnesota became a State May 11, 1858 (c. 31, 11 Stat. 285).

The present controversy arises from conflicting interpretations of the words—"thence [westwardly] through the centre of Lake Superior *to the mouth of the St. Louis River*; thence up *the main channel of said river* to the first rapids in the same, above the Indian village, according to Nicollet's map." The situation disclosed by an accurate survey gives much room for differences concerning the location of the "mouth of the St. Louis River" and "the main channel of said river." Nicollet's Map of the "Hydrographical Basin of the Upper Mississippi River," published in 1843, and drawn upon a scale of 1:1,200,000—approximately twenty miles to the inch—is too small either to reveal or to give material aid in solving the difficulties. A sketch from it—approximately on original scale—is printed on the next page.

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During 1823-1825 Lieutenant Bayfield of the British Navy surveyed and sounded the westerly end of Lake

SKETCH FROM SECTION OF NICOLLET'S MAP.

*On original scale: 20 miles to 1 inch.*



Superior and the lower waters of St. Louis River. A chart compiled from data so obtained (1:49,300,—4108 feet to the inch) and published in 1828, shows the general configuration and lays the proper sailing course southward of

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STATE OF MINNESOTA v. STATE OF WISCONSIN.

IN EQUITY.

No. 16, Original. Argued October 16, 17, 1919.—Decided  
March 8, 1920.

Part of the boundary between Wisconsin and Minnesota is described in the Wisconsin Enabling Act of August 6, 1846, as running westwardly, through Lake Superior "to the mouth of the St. Louis River; thence up the main channel of said river to the first rapids in the same, above the Indian village, . . . ; thence due south," etc. As given in the Minnesota Enabling Act of February 26, 1857, from the opposite direction, the line follows the boundary of Wisconsin

Big Island. Prior to 1865 this was the only available chart and navigators often used it.

The first accurate map of these waters was drawn from surveys and soundings made under direction of Captain George W. Meade in 1861 and is now on file in the Lake Survey Office at Detroit. After being reduced one-half—to a scale of 1:32,000 or approximately two inches to a mile—it was engraved and published in 1865 or 1866. Known as the Meade Chart, this reproduction is accepted by both parties as adequately disclosing conditions existing in 1846. A rough sketch based upon the chart—about one-third of its size—and also a photographic reproduction of a portion of the original map, are printed on succeeding pages [284, 285.]

Minnesota and Wisconsin Points are low narrow strips of sand—the former six miles in length, the latter approximately three. Between them there is a narrow opening known as "The Entry," and inside lies a bay (Allouez and Superior) nine miles long and a mile and a half wide. A narrow channel between Rice's Point and Connor's Point leads into Lower St. Louis Bay, approximately a mile and a half wide and three miles long. Passing south of Grassy Point another channel leads into irregular shaped Upper St. Louis Bay with Big Island at its southwesterly end. Southeast of this Island begin the well defined banks, deep narrow channel and obvious current characteristic of a true river; these continue through many windings to the falls above the Indian village noted on Nicolle's Map.

Meade's Chart indicates: A depth of not over eight feet across the bar at "The Entry." A deep channel through Superior Bay; rather shallow water with a ruling depth of eight feet in Lower St. Louis Bay; eight feet of water on a fairly direct course, about a mile in length, from the deep channel south of Grassy Point and east of Fisherman's Island to the deep water immediately westward of the

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bar, about seven-eighths of a mile northeast of Big Island. It further discloses a curving channel along the west side of Grassy Point and thence close to the Minnesota shore and around Big Island, with a depth of fifteen or more feet except at the bar, where there are only ten, possibly eight, feet. To the south of Big Island lies the well-known and formerly much used course indicated on Lieutenant Bayfield's Map.

The level of the water within all the bays is substantially the same as in Lake Superior; such current as exists flows in opposite directions according to the wind and movement within the Lake. The shores are irregular and much indented.

Since 1893 the United States have dredged a twenty-two foot channel through Upper St. Louis Bay and around Grassy Point; thence through Lower St. Louis Bay (where there are two branches) and between Rice's and Connor's Points; thence through Superior Bay to "The Entry" and into the Lake. Extensive docks have been constructed from the Minnesota shore in both the upper and lower bays; those extending southwest from Grassy Point cross the boundary claimed by Wisconsin. The general situation of 1846 continued until long after 1861, but during the last thirty years extensive improvements required for a large and busy harbor have produced great changes.

The complainant maintains that within the true intentment of the statute the "mouth of the St. Louis River" is southeast of Big Island, where end the banks, channel and current characteristic of a river and lake features begin. On the other hand the defendant insists, and we think correctly, that such mouth is at the junction of Lake Superior and the deep channel between Minnesota and Wisconsin Points—"The Entry."

It is unnecessary to specify the many facts and circumstances, historical and otherwise, which lead to the conclusion stated. They seem adequate notwithstanding



some troublesome objections based upon the peculiar hydrographic conditions.

Treating "The Entry" as the mouth of the St. Louis River, where is the line "thence up the main channel of said river to the first rapids," etc.? This must be determined upon consideration of the situation existing in 1846, which the parties admit remained substantially unchanged until after the Meade survey. No alterations now material have come about through accretion or erosion.

The line through Superior Bay is not here called in question. But let it be noted that no vessel drawing more than eight feet could have passed into that bay from Lake Superior; that within "The Entry" there were only small boats of light draft; and that navigation long remained rather primitive.

Lower St. Louis Bay was shallow, with a ruling depth of eight feet, and had no well-defined channel. From the deep water at the southern tip of Grassy Point a vessel drawing less than eight feet bound north of Big Island and beyond could have turned northwest and followed the narrow winding channel near the Minnesota shore with a ruling depth of ten, possibly eight, feet. Or it could have proceeded westward, approximately one mile, over a more direct course with a depth of eight feet or more, until it came to the deeper channel about seven-eighths of a mile northeast of Big Island. This latter course is indicated by the red trace "A, B, C" on Minnesota's Exhibit No. 1—Meade's Chart. For many years officers and representatives of both States regarded the boundary as on or near this line. And, considering all the circumstances, we think it must be accepted as the main channel within intendment of the statute. No current controlled navigation and vessels proceeding in opposite directions followed the same general course.

Both parties say that in 1846 "practically all of Upper and Lower St. Louis Bays between the shores were navi-



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gable for such vessels as were accustomed to use said bays at said time for the purpose of navigation, and there was no defined course, or channel, in said bays, which said vessels followed, but, owing to the depth of the water, they were permitted and accustomed to travel across said bays in any direction." For very many years subsequent to 1846 there were no vessels with eight foot draft upon these waters; and probably none of such size regularly plied there until 1890 or later.

The course south of Big Island shown on the Bayfield map was never accepted as the boundary and need not be further considered. Wisconsin's claim to that island is not denied.

Manifestly, from the description heretofore given, the waters between Big Island and Lake Superior were broad sheets without any definite uninterrupted deep channel extending throughout their entire length. Also, there was no steady, controlling current. Such vessels as plied there in 1846 and long thereafter moved with freedom in different directions. The evidence convinces us that as navigation gradually increased prior to 1890, the northerly course in Upper St. Louis Bay commonly followed by vessels going to or coming from points above Big Island was not along the narrow curving channel skirting Grassy Point but over the shorter one near the middle of the bay.

This court approved the doctrine of *Thalweg* as opposed to the physical middle line, in *Iowa v. Illinois*, 147 U. S. 1, and has adhered thereto. *Louisiana v. Mississippi*, 202 U. S. 1; *Washington v. Oregon*, 211 U. S. 127; 214 U. S. 205; *Arkansas v. Tennessee*, 246 U. S. 158. "When a navigable river constitutes the boundary between two independent States, the line defining the point at which the jurisdiction of the two separates is well established to be the middle of the main channel of the stream. The interest of each State in the navigation of the river admits

of no other line. The preservation by each of its equal right in the navigation of the stream is the subject of paramount interest. . . . Thus the jurisdiction of each State extends to the thread of the stream, that is, to the 'mid-channel,' and, if there be several channels, to the middle of the principal one, or, rather, the one usually followed." (*Iowa v. Illinois*, *supra*, pp. 7, 13.) "As to boundary lakes and landlocked seas, where there is no necessary track of navigation, the line of demarcation is drawn in the middle, and this is true of narrow straits separating the lands of two different States." (*Louisiana v. Mississippi*, *supra*, p. 50.)

The doctrine of *Thalweg*, a modification of the more ancient principle which required equal division of territory, was adopted in order to preserve to each State equality of right in the beneficial use of the stream as a means of communication. Accordingly, the middle of the principal channel of navigation is commonly accepted as the boundary. Equality in the beneficial use often would be defeated, rather than promoted, by fixing the boundary on a given line merely because it connects points of greatest depth. Deepest water and the principal navigable channel are not necessarily the same. The rule has direct reference to actual or probable use in the ordinary course, and common experience shows that vessels do not follow a narrow crooked channel close to shore, however deep, when they can proceed on a safer and more direct one with sufficient water.

As we view the whole record, the claim of Wisconsin cannot prevail unless the doctrine of *Thalweg* requires us to say that the main channel is the deepest one. So to apply it here would defeat its fundamental purpose. The ruling depth in the waters below Upper Bay was eight feet, and practically this limited navigation to vessels of no greater draft. For these there was abundant water near the middle line. Under such circumstances

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Minnesota would be deprived of equality of right both in navigation and to the surface if the boundary line were drawn near its shore.

A decree will be entered declaring and adjudging as follows: That the boundary line between the two States must be ascertained upon a consideration of the situation existing in 1846 and accurately disclosed by the Meade Chart. That when traced on this chart the boundary runs midway between Rice's Point and Connor's Point and through the middle of Lower St. Louis Bay to and with the deep channel leading into Upper St. Louis Bay and to a point therein immediately south of the southern extremity of Grassy Point; thence westward along the most direct course, through water not less than eight feet deep, eastward of Fisherman's Island and as indicated by the red trace "A, B, C," on Minnesota's Exhibit No. 1, approximately one mile, to the deep channel and immediately west of the bar therein; thence with such channel north and west of Big Island up stream to the falls.

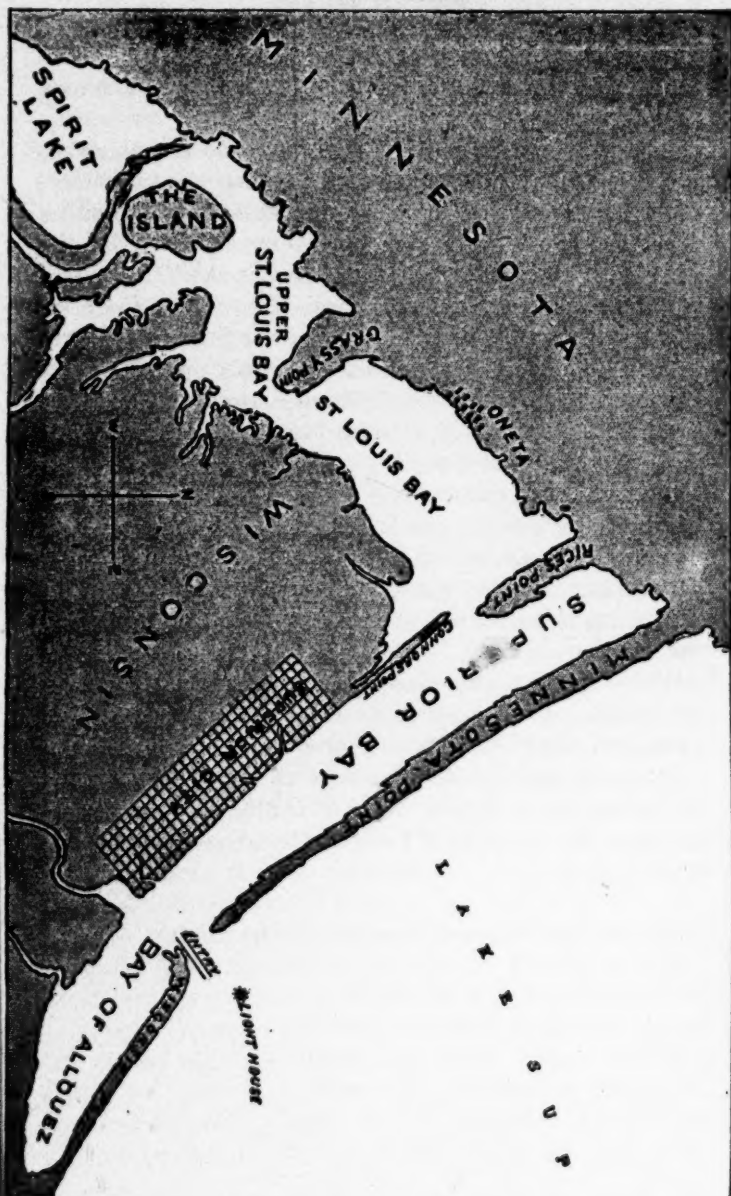
Within thirty days counsel may present a proper decree for carrying this opinion into effect. The costs will be equally divided between the States.

It seems appropriate to repeat the suggestion, made in *Washington v. Oregon*, *supra*, 217, 218, that the parties endeavor with consent of Congress to adjust their boundaries.

MR. JUSTICE BRANDEIS concurs in the result.

SHORE LINE—SKETCHED FROM MEADE'S CHART.

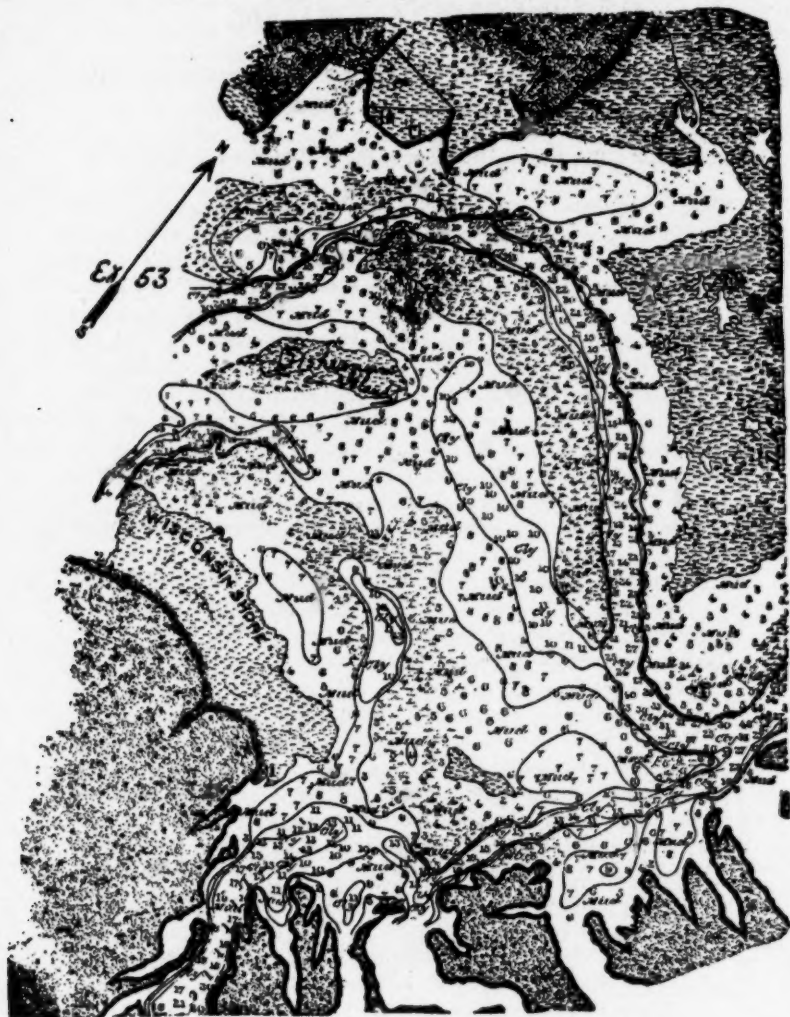
Scale: About two-thirds of an inch to 1 mile.



FROM A PHOTOGRAPH—PORTION OF ORIGINAL MEADE MAP WEST OF  
GRASSY POINT, ON FILE IN OFFICE U. S. ENGINEERS.

Scale: About 1 mile to 3 inches.

(The words "Fishermans Island" have been added.)



← To The Falls

To Lake Superior →